Optimizing the treatment of oesophageal cancer

Propositions accompanying the dissertation

Optimizing the treatment of oesophageal cancer
NEW INSIGHTS AND THE ROLE OF HYPOXIA

- Even with a strict gastric filling scenario, physiological stomach motion and shape variation seems unpredictable and unavoidable but with a planning target volume margin of 1 cm there is no need for adaptive radiotherapy. (*this PhD thesis)*

- The regulation of glucose metabolism in oesophageal cancer is the consequence of a combination of multiple factors and multi-links with hypoxia. *(this PhD thesis)*

- Future studies should focus on whether cervical oesophageal cancer is best treated according to a head and neck cancer or oesophageal cancer protocol. *(this PhD thesis)*

- 4D CT datasets in oesophageal cancer can be used as alternative to eliminate unstable radiomics features as a first step in a prognostic feature selection procedure. *(this PhD thesis)*

- The use of non-invasive repeated hypoxia imaging in a window-of-opportunity trial may help to stratify patients by identifying the biologically effective dose of hypoxia targeted drugs. *(this PhD thesis-valorisation addendum)*

- The development of drugs targeting tumour hypoxia create an attractive opportunity to increase the efficacy of immunotherapy.

- Radiation therapy utilization could dramatically increase with new opportunities and developments in immunotherapy.

- The goal of future radiotherapy may be to integrate tumour characteristics , tumour response and susceptibility of normal tissue to injury in a unified model for personalized treatment strategy.

- Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less. *(Marie Curie, 1867-1934)*

- It always seems impossible until it's done. *(Nelson Rolihlahla Mandela, 1918-2013)*

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